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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,788	12/03/2004	Jonathan Plimpton	MAV-102-C1	7340

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EXAMINER

CASAREGOLA, LOUIS J

ART UNIT PAPER NUMBER

3746

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/516,788

Applicant(s)

PLIMPTON ET AL.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-18 is/are allowed.
- 6) ☒ Claim(s) 1-9, 19-20 is/are rejected.
- 7) ☒ Claim(s) 21-23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/3/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

Objections To Drawing

The drawing in this case is objected to under 37 CFR 1.83(a) for the following reasons:

Claim 14 recites a collimating mirror, a diffraction grating, and a focusing mirror; claim 15 further recites an order sorting filter; and claim 17 additionally recites a chopper, a prism, and parabolic optical-path-folding mirrors. Under §1.83(a), the drawing must show every feature specified in the claims, but none of the above listed elements can be found in the present drawing. Even if these elements are conventional, they must still be illustrated in schematic form, and a drawing amendment showing all missing elements is therefore required in response to this office action.

Claim Rejections - 35 USC 102

Claims 1, 2, 5 and 6 are rejected under 35 USC 102(b) as being anticipated by Minott et al.

The structure of the claimed optical detection apparatus reads on conventional optical apparatus of the type disclosed by Minott. Attention is called to Minott's Figures 1, 2 and 5; note viewing port 43, sensor 24, output means 26, fiber optic cable 3, collection optics 23, and electro-optics module 4. Note also that claimed reference to

detecting a flame in a turbine exhaust path is a matter of intended use, and if the claimed optical apparatus is presumed capable of being used in this manner, then the equivalent prior art structure can be presumed equally capable. With regard to claim 2, it is additionally pointed out that the wavelength response of Minott's sensor as shown in Figure 8 falls within the range specified in the claim.

Claim Rejections - 35 USC 103

Claims 3, 4, 19 and 20 are rejected under 35 USC 103(a) as being unpatentable over Minott et al in view of Castleman.

The use of a computer and/or data storage device in conjunction with an optical flame sensor is a well known concept as shown, for example, by Castleman; see for example flame detector 32 in Figure 1 along with the corresponding discussion in column 15, lines 25-30. The nominal addition of a computer or some equivalent device to Minott's optical flame sensing system would have thus been a conventional and obvious expedient for efficient processing and storage of optical data generated by the system.

Claims 7-9 are rejected under 35 USC 103(a) as being unpatentable over Minott et al in view of Das et al or vice versa.

While Minott's optical sensor is shown as located in a gas turbine combustion chamber, it is well known that such sensors can be located in other areas as shown

for example by Das. See Das's Figure 1; note sensor 11 in afterburner region 9 and note also that the afterburner region is located in a gas turbine's exhaust path. It would have been obvious to place a sensor such as Minott's in this same region in order to gather useful optical data from that region.

Allowable Subject Matter

Claims 10-18 are allowed. Claims 21-23 also include allowable subject matter but are objected to as depending from rejected parent claims. If rewritten in independent form, claims 21-23 will also be allowed.



L. J. Casaregola
571-272-4826 (M-F; 7:30-4:00)
571-273-8300 FAX
June 26, 2001

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).